

h/p/cosmos®



System solution
therapy

ahead of time®



Treadmill solutions for modern therapy

... h/p/cosmos pluto® and mercury®

h/p/cosmos standard

h/p/cosmos has been developing and building treadmills for 30 years. for fitness, competitive sports, sports medicine, rehabilitation, sports science, Biomechanics and diagnostics. This experience is reflected in the pluto® treadmills. and mercury® and thus offers you the high h/p/cosmos standard at an attractive price.

Stable and low-maintenance

With their stable frame, the pluto® and mercury® treadmills are practically indestructible, very low-maintenance and offer the runner or patient a pleasant running feeling thanks to their state-of-the-art design. They also stand out due to their smooth running, their versatile functions, their powerful drive and their timeless design.

Medical device (Class IIb) and sports treadmill

pluto® and mercury® are available as Class IIb medical treadmills as well as sports treadmills. As a medical product, they are particularly suitable for the use in the fields of cardiology, neurology, cardiological rehabilitation and physiotherapy. The interface of the two treadmill ergometers enables the connection to ECG, ergospirometry systems, blood pressure monitors and software programs via the coscom® protocol.

Customer-specific configuration for individual solutions

Treadmills off the peg can be many, at h/p/cosmos you get your individually assembled treadmill solution with a large selection of options and accessories.

Too little budget for the desired configuration? Changed demands on the treadmill system due to new business areas or new areas of application?

No problem, most options can also be retrofitted at a later date. With h/p/cosmos you are always on the right track, because you cannot make the wrong decision due to the flexible and modular design.



flexible handrail system



Our quick-change artists

- ... handrails can be changed flexibly
- ... unique in this cosmos.

Detachable handrail

If the application requires it, the handrails can also be completely removed. For safety reasons, a crossbar must then be used, which is mounted on two very short handrails. This variant makes sense, for example, if a video analysis is carried out by sagittal or if an ECG stress test is carried out in cardiology (handrail disturbs cable routing).

Short / long handrail

The ingeniously simple plug-in system makes it child's play to change the handrails and adapt them to the required application. As standard we deliver the treadmills pluto and mercury with short handrails, which cover about half of the running surface. By loosening two allen screws, the short handrail can be easily removed and replaced with a long handrail (reaching to the end of the running surface), either on one side or on both sides (safety when climbing up).

Pediatric handrails for paediatric rehabilitation

As accessories, children's handrails (only in combination with the safety bar) are also available for use in paediatric rehabilitation. Children can hold on to the side and front of the treadmill while walking and thus always have a feeling of safety and control.

Adjustable handrail

The pluto and mercury treadmills can also be supplied with height and width adjustable handrails. This variant is ideal if you serve a heterogeneous clientele. They offer the different patient types (large / small / children / obese) optimal conditions for therapy / training. With the armrests (optional), you also enable patients to train more safely and without fear and also offer the possibility of relieving their body weight.



options



Additional options for your individual treadmill solution

The numerous additional options allow you to adapt the pluto and mercury treadmills exactly to your needs and your field of application.

Our most successful options:

Safety arch:

In the event of a fall, the patient is caught and the treadmill is automatically switched off.

Weight relief airwalk® ap (with emergency stop):

Weight relief (dynamic and continuously adjustable approx. 0.5 ... 80 kg) and Fall protection (patient is caught and the treadmill belt stops).

robowalk®:

The h/p/cosmos robowalk expander is a rubber cord system for h/p/cosmos treadmills. The test person's legs are connected to the rubber cables via cuffs and offer support and resistance during the walking and running movement. Especially the traction support by the rubber rope pulls / expanders is a valuable help for patients and therapists to perform exercises physiologically and longer and thus to improve the therapy success.

Arm Support:

With additional stop: the individually adjustable armrests give the patient stability and a feeling of safety.

Additional keyboard:

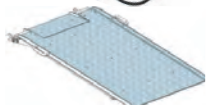
The patient can control the treadmill without removing the arms from the armrests. Therapists can control the treadmill externally from a comfortable position around the treadmill.

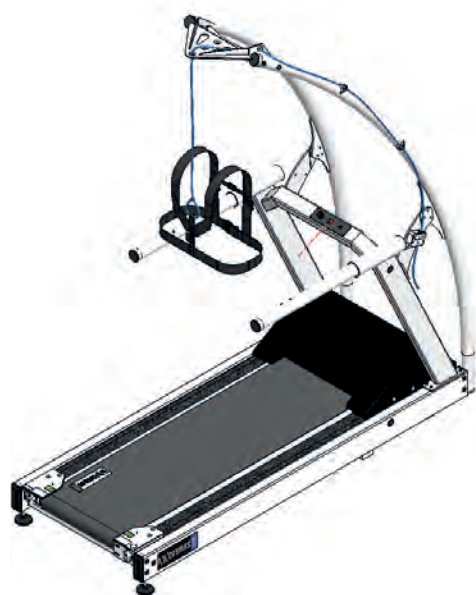
Wheelchair ramp:

Enables patients to safely access the treadmill from the wheelchair.

Reverse direction of rotation:

The running belt runs in the opposite direction. With the incline set at the same time, a downhill or running run can be simulated. The option is available for all h/p/cosmos treadmills with incline option.





pluto lt (med)



pluto (med)



mercury (med)

system diversity

Discover the treadmill world of h/p/cosmos.

The pluto and mercury models have the same base frame as the pluto and mercury models and have the same device dimensions and running surface.

You have the choice between three models - they are all powerful and efficient.

model	pluto® lt med pluto® lt	pluto® med pluto®	mercury® med mercury®
UserTerminal / operating unit:	none	centred	left or right (optional: rotatable)
Unit dimensions (L x W x H) in cm:	209 x 86 x 131	209 x 86 x 131	209 x 86 x 147
Deck size (L x W) in cm:	150 x 50	150 x 50	150 x 50
Weight:	211 kg	211 kg	211 kg
Max. user weight:	250 kg	250 kg	300 kg
Max. Speed:	0...18 km/h	0...18 km/h	0...22 km/h
Optional speed:	0...22 km/h	0...22 km/h	-
Max. elevation:	0% ... +20%	0% ... +20%	0% ... +25%
optional elevation:	0% ... +25%	0% ... +25%	-
Running belt top surface:	PVC approx. 2 mm	PVC approx. 2 mm	rubber approx. 5 mm
wireless heart rate:	none	5 kHz receiver without chest strap	5 kHz receiver with chest strap
Power supply:	230 Volt, 16A Fuse protection	230 Volt, 16A Fuse protection	230 Volt, 16A Fuse protection
Article number:	cos30027-01va02 cos30027-01va01	cos30026-01va02 cos30026-01va01	cos30000-02va02 cos30000-02va01

robowalk



The gait therapy should start as early as possible and should be enjoyed by both the patient and the therapist. In many cases, this requires the support of the patient. The h/p/cosmos robowalk® expander rehabilitation system offers this support in several ways.

How does h/p/cosmos robowalk® expander work?

The expander system consists of eight elastic expander cables. Two pairs of expanders are attached to the front and rear ends of the treadmill via longitudinal rails. The expander cables are attached to one or both legs by means of cuffs, depending on the indication. The equipment technology determines the effect of the expander cables on walking. Basically, two different techniques can be distinguished: one in which the expander pulls support the direction of movement of the legs („support mode“, see Figure 1) and one in which they offer resistance against the direction of movement („challenge mode“, see Figure 2). The degree of support or resistance is adjusted by the pull angles of the expanders. This can be varied by the position of the expander cables along the longitudinal rails.

The following are some examples of how the robowalk Expander can be used in therapy:

Example 1:

Training configuration with support from the expander pulls and partial relief of body weight.

The two front pulls support the (hemiparetic) right leg in the swing phase. The front-upper traction especially promotes adequate hip flexion, while the front-lower traction facilitates forward progression of the lower leg. The rear traction supports above all the knee flexion at the beginning of the swing phase and then enables an even forward movement of the leg.



Direction of movement of the patient

Effect of the expander trains: Support

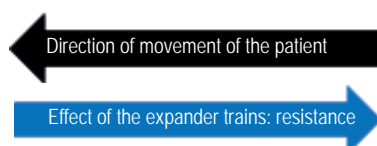


robowalk



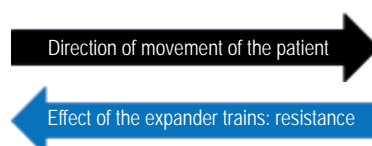
Example 2:

Training configuration with sideways steps against slight resistance. A special function of the treadmill reverses the running direction so that the patient steps sideways to her right side. The front-lower expander pull gives a slight resistance to the abduction movement.



Example 3:

Training configuration with backward steps against slight resistance. The patient walks backwards, while the rear upper expander pull exerts a resistance against the extension movement of the hip. The rear-bottom expander pull is diagonal (coming from the medial) and thus represents an additional resistance in abduction direction.



As example 3 shows, the robowalk Expander can also be used very well to strengthen the hip text sensors. The aim of this system is to transfer the weight to the affected leg during the entire stance phase. Other settings improve knee flexion or knee extension, for example.





sport
quasars®



bike & athletic training
saturn® med 300/100r



performance diagnostics
pulsar® med 3p



inline skating
saturn® med 300/125r



functional training
pulsar® med 3p + robowalk®



**cross-country skiing
skating / biathlon**
saturn® med 450/300rs



wheelchair
saturn® med 300/100r



speed training
speedlab®
pulsar® med 3p



fitness
mercury® / pluto®



motion analysis
quasars® med



expander training
robomove®



speed, agility & cognitive skills
speedzone® | speedlab®



**biomechanics
gait parameters**
optogait

rehabilitation



active gait correction
robowalk expander® mercury® med



senior fitness
mercury®



locomotion therapy
locomotion® 150/50 DE med



cardiological reha
mercury® med



unweighting system
airwalk® / mercury® med



angiology
mercury® med



gait analysis / biomechanics
gaitway® with force measurement



**cardiopulmonary
diagnostics CPET**
mercury® It med



orthopaedic rehabilitation
mercury® med



gait bar training
parawalk®

special applications



climate chamber
pulsar® 3p
external UserTerminal



**sprint & overfrequency training
train support**
sprint trainer comet®



**military mercury®
special version**



**hypoxic
height training**
mercury® med



SpeedLab®
methodology,
education & equipment



**ladder ergometer
climbing / fire brigade**
discovery®

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